

The Examiner again argues that Weingarten et al. disclose a laser arrangement having two resonator arms and that Weingarten et al. only fail to show a switching arrangement to selectively connect a common laser arm to one of the two resonator arms. The Examiner cites the patent to Fossey et al. as teaching the switching arrangement. Applicant respectfully submits that it would not be obvious to combine the teachings of these references and there is no motivation for combining the teachings as argued by the Examiner. The only motivation for making such a combination, is by hindsight reconstruction based upon the teachings of the present application. Applicant respectfully submits that if Weingarten et al. do in fact disclose two resonator arms as argued by the Examiner then obviously a switching arrangement would be necessary to switch over between the two resonator arms. However, the Examiner concedes that Weingarten et al. do not disclose such a switching arrangement. Without having such a switching arrangement, a design of a laser arrangement with two specific resonator arms for specific purposes, would be senseless since without such a switching arrangement it would not be possible to change from one mode of operation with one resonator arm to the other mode of operation with the other resonator arm.

Therefore, Applicant respectfully submits that Weingarten et al. do not disclose a second resonator arm at all, but instead only disclose a conventional laser arrangement with a conventional, normal laser resonator comprising two end mirrors. These end mirrors are the SESAM mirror 4 and the surface 21 of the laser crystal 2. Accordingly, as indicated in column 11, lines 17-20 of Weingarten et al., the laser resonator cavity 3.1 is defined as being formed between the laser crystal 2 at one end and the SESAM device 4 at the other end. This applies for both the disclosed arrangements, namely that of Figure 1 as well as that of Figure 2. The only difference between the two disclosed laser arrangements is that according to Figure 1 both end mirrors have reflectivity of 100% at the laser wavelength. Here, outcoupling of the laser beam is then done by means of a mirror 31 which is a semitransmitting mirror. According to Figure 2 of Weingarten et al., the surface 21 is semitransmitting at the laser wavelength and the laser beam is outcoupled by means of the beam splitter 53. It is per se conventional and well known for laser arrangements to have one end mirror which is a totally reflective mirror and to use another end mirror which is semitransmitting so that it can be used as an outcoupler.

Weingarten et al. do not teach a second resonator arm and the Examiner in fact does not indicate with which reference numeral this second resonator arm is shown in the Figures, whereas the first resonator arm is shown with the character 4.

It should be mentioned that the common arm comprising a pump unit 1 and the laser crystal 2 in Weingarten et al. cannot be considered a resonator arm, but instead can only be considered as a pump unit which is, of course, present in the laser arrangement of the present application (compare the unit 2 in Figure 1). Details, such as lenses 12, 13 of the pump unit of Weingarten et al. have not been shown in the drawings of the present application since pump units per se are well known in the art and in the present case the pump unit does not form the inventive part of the claimed invention.

Thus, Applicant respectfully submits that Weingarten et al. only teach a single resonator cavity in connection with the laser arrangement. There is no disclosure at all with respect to two resonator arms having different functions and to switching means for switching over from the one resonator arm to the other during operation to carry out different modes of operation.

Based upon this interpretation of Weingarten et al., the teachings of Fossey et al. add nothing which would lead to the presently claimed invention. Fossey et al. only discloses a switchable two-wavelength frequency converting laser system where a frequency converter is provided which is activated by switching the polarization of the laser beam. This, of course, has nothing to do with the switching between two laser resonator arms which each form part of a laser resonator which is completed by a common resonator arm. Of course laser switching means have been known per se. Further, it is the core of the present invention that there are two different resonator arms which can be switched to form, in combination with a common resonator arm, the respective laser resonator cavity in the respective modes of operation. This is the subject matter which is defined in independent claim 12 and this structure is not taught or suggested by the combination of Weingarten et al. and Fossey et al.

If one would really combine the teachings of Weingarten et al. and Fossey et al., what would result is a laser arrangement as taught by Weingarten et al. that is suited to output different laser wavelengths. This is still different from the structure recited in independent claim 12.

In view of these considerations, it is respectfully submitted that the rejection of claims 12-14, 16-19 and 21-23 under 35 U.S.C. §103(a) over a combination of the above-discussed references is overcome and should be withdrawn.

The patent to Rieger et al. has also been considered. Applicant respectfully submits that this reference adds nothing to the teachings of Weingarten et al. and Fossey et al. so as to lead to the presently claimed invention as discussed above. Therefore, it is respectfully submitted that the rejection of claims 15 and 20 under 35 U.S.C. §103(a) over a combination of the above-discussed references is overcome and should be withdrawn.

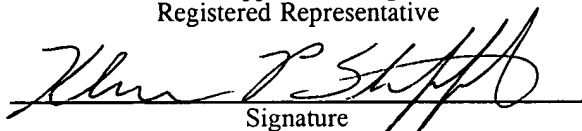
Reconsideration and allowance of the present application are respectfully requested.

In the event the actual fee is greater than the payment submitted or is inadvertently not enclosed or if any additional fee during the prosecution of this application is not paid, the Patent Office is authorized to charge the underpayment to Deposit Account No. 15-0700.

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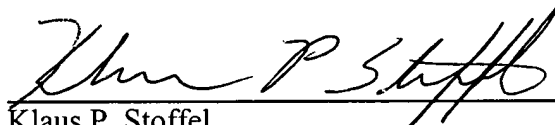
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